(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 26 May 2005 (26.05.2005)

PCT

(10) International Publication Number WO 2005/046426 A2

(51) International Patent Classification7:

A61B

(21) International Application Number:

PCT/IL2004/001057

(22) International Filing Date:

17 November 2004 (17.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/520,255

17 November 2003 (17.11.2003) US

(71) Applicant (for all designated States except US): SPIRO-JET MEDICAL LTD. [IL/IL]; P.O.Box 12, 12900 Katzrin (IL).

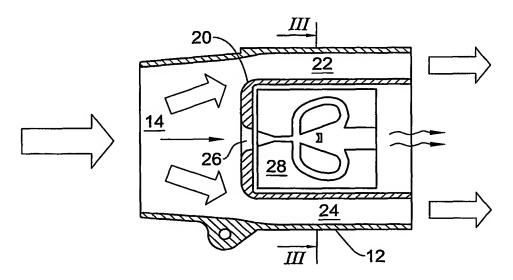
(72) Inventors; and

(75) Inventors/Applicants (for US only): KRASILCHIKOV, Yehezkel [IL/IL]; 3/5 Hadudaim Street, 12900 Katzrin (IL). LITVAK, Anna [IL/IL]; 9 Hasida Street, 12900 Katzrin (IL). SHESTATSKI, Felix [IL/IL]; 34/3 Hativat Yiftach, 20100 Carmiel (IL).

- (74) Agent: REINHOLD COHN AND PARTNERS; P.O. Box 4060, 61040 Tel Aviv (IL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: SPIROMETER



(57) Abstract: Pocket-size medical spirometer comprising a housing and a measurement unit (MU), for measuring rate of total flow when a user exhales through the spirometer. The MU comprises a fluidic jet oscillator adapted to generate oscillating flow with frequency dependent on the rate of flow therethrough. The MU is disposed within the housing so as to form a bypass flow path defined between an outer surface of the MU and an inner surface of the housing. A measurement flow path is defined through the fluidic jet oscillator, such that the total flow is divided into a bypass flow and a measurement flow, the latter being less than the former at least by an order of magnitude. The spirometer further comprises a pressure or velocity transducer and an electronic circuit adapted to derive the total flow rate or volume from the transducer signal.



WO 2005/046426 A2



Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.